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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/010,801	HAMBURG ET AL. <i>SG</i>
	Examiner Ella Colbert	Art Unit 3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 19 July 2004.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-7,9-25,27-37 and 39-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-7,9-25,27-37 and 39-47 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

1. Claims 1-5, 9-25, 27-37, and 39-47 are pending. Claims 1, 9, 16-18, 22, 37, and 39-43 have been amended in this communication filed 07/19/04 entered as Response to Office Action.
2. The 35 USC 112, second paragraph rejection still remains for claims 17-21, 41 and 42 in view of newly found issues raised by the amendment to claims 17-21, 41 and 42.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 9, 16-18, 22, 37, and 39-43 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. What the cause and effect of the state change and what the state is that is being captured are critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). It is unclear from Applicants' disclosure what the captured state is, what caused the captured state, and what the effect is of the captured state. Applicants' do not disclose that the state is an undo history list or a redo history list of operations on the document. It appears to be virtually impossible to achieve what Applicants' are attempting to claim in the claim language. What operation is being performed to capture what state of the document?

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 1, 9, 16-18, 22, 37, and 39-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear and vague from the claim language what Applicants' are really attempting to claim. For example, "maintaining in a memory a state history of a document". What is meant by the state history of this document? Claim 1, line 3, reads "... an interesting operation being an operation by the application that changes the state of the document in response to a user command, automatically capturing the state of the document in response to the user command, automatically capturing the state of the document as it exists after the operation" ... the captured state being complete in itself in the sense that earlier document states in the state history of the document can be deleted without adverse effect" is vague and unclear as written. The Examiner is unsure what Applicants' are trying to say or to claim. Claims 9, 16-18, 22, 37, and 39-43 have a similar problem.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claim1 is rejected under 35 U.S.C. 103(a) as being unpatentable over (US 5,82,375) Nomura et al, hereafter Nomura in view of (US 6,185,591) Baker et al, hereafter Baker.

With respect to claim 1, Nomura teaches, the application maintaining in a memory a state history of a document (col. 13, lines 53-65). Nomura failed to teach, whenever an interesting operation has occurred, an interesting operation being an operation by the application that changes the state of the document in response to a user command, automatically capturing the state of the document as it exists after the operation and adding the captured state to the state history of the document, the captured state of the document being complete in itself in the sense that earlier document states in the state history of the document can be deleted without adverse effect. Baker teaches, whenever an interesting operation has occurred, an interesting operation being an operation by the application that changes the state of the document in response to a user command, automatically capturing the state of the document as it exists after operation and adding the captured state to the state history of the document, the captured state of the document being complete in itself in the sense that earlier document states in the state history of the document can be deleted without adverse

effect (col. 2, lines 45-62, col. 3, lines 7-20, and col. 5, lines 48-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have whenever an interesting operation has occurred, an interesting operation being an operation by the application that changes the state of the document in response to a user command, automatically capturing the state of the document as it exists after the operation and adding the captured state to the state history of the document, the captured state of the document being complete in itself in the sense that earlier document states in the state history of the document can be deleted without adverse effect and to modify in Nomura because such a modification would allow Nomura to have an edit system with an enhanced undo interface which selectively displays undo elements (records), that is, previous states of the document text and to have a series of user interface enhancements with the enhanced edit system providing a rich and flexible set of capabilities to the user.

10. Claims 2-7 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 5,828,375) Nomura et al, hereafter Nomura and Baker in view of (US 6,310,630) Kulkarni et al, hereafter Kulkarni.

With respect to claim 2, Nomura and Baker failed to teach, wherein the memory comprises a disk file.

Kulkarni teaches, wherein the memory comprises a disk file (col. 4, lines 55-63). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the memory comprise a disk file and to modify in Nomura because such a modification would allow Nomura to have a removable memory which may include a floppy disk or hard disk.

With respect to claim 3, Nomura teaches, maintaining in the state history the order in which the stored states were automatically added to the state history (col. 17, lines 37-42 and col. 18, lines 6-14 and lines 56-64), displaying the state history to a user as a list of document states shown in their stored order (col. 17, lines 34-47).

With respect to claim 4, Nomura teaches, the list of document states displayed to the user comprises a list of items, each item representing a state of the document that existed after an interesting operation and that can be recovered directly by selecting the item (col. 21, lines 15-36 and fig. 18).

With respect to claim 5, Nomura teaches, providing a tool operable under user control to obtain source material from any state in the state history ("... a pointing device and actuating the pointing device.") and apply it to a current state of the document, where the document is a raster image (col. 21, line 47-67).

With respect to claim 6, Nomura teaches, enabling a user to select an item in the displayed list of items and cause the application to create a new document having the document state corresponding to the selected item (col. 21, lines 5-46).

With respect to claim 7, Nomura teaches, each of the captured states in the state history maintains the state data in essentially its original form, whereby the captured state data is suitable for immediate use in other operations (col. 33, lines 58-67, col. 34, lines 1-65, and col. 22, lines 21-29).

With respect to claim 22, Nomura teaches, identifying for the user on a display device a set of states that the document has been in by operation of the application (col. 13, lines 53-67 and col. 14, lines 1-6) and enabling the user to designate any one of the identified states as a document state operand (col. 15, lines 31-43).

With respect to claim 23, Nomura teaches, displaying the document in a user interface window, the document being a digital image (col. 12, lines 3-33)

With respect to claim 24, Nomura teaches, displaying user-interface elements for applying filters to a digital image (col. 4, lines 41-51, col. 14, lines 50-60, col. 20, lines 61-67, and col. 21, lines 1-4).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 9, 10, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,185,591) Baker et al, hereafter Baker in view of (US 5,828,375) Nomura et al, hereafter Nomura.

With respect to claims 9 and 39, Baker teaches, receiving from the user a sequence of commands to change the state of the document (col. 4, lines 64-67 and col. 5, lines 1-7), changing the document state in response to each command (col. 5, lines 7-20), and for each document state added to the state history, adding a corresponding entry to a history list displayed to the user on a computer-controlled display device operated as part of a graphical user interface (col. 5, lines 50-60 and col. 6, lines 2-5 and lines 50-56). Baker failed to teach, adding the changed document state to a state history maintained in a computer-readable memory device each time the document state is changed. Nomura teaches, adding the changed document state to a state history maintained by the application in a computer-readable memory device each time the document state is changed, the changed document state being complete in

itself in the sense that older document states in the state history of the document can be discarded without adverse effect (col. 17, lines 37-42 and col. 18, lines 6-64) and in response to a user action, selecting an item in the history list and establishing the document state corresponding to the selected item in the history list as the current state of the document (col. 14, lines 50-61 and col. 16, lines 37-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the changed document state to a state history maintained in a computer-readable memory device each time the document state is changed and to modify in Baker because such a modification would allow Baker to make changes to a document and to have programs, files, and options by means of icons, menus, and dialog boxes on the screen. The user can select and activate these options by pointing and clicking with a mouse or with the keyboard.

With respect to claim 10, Baker failed to teach, the state history and the history list are limited to storing a preset number of items and excess items are scrolled off the top of the list as new items are added. Nomura teaches, the state history and the history list are limited to storing a preset number of items and excess items are scrolled off the top of the list as new items are added (col. 5, lines 1-18 and lines 60-66). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the state history and the history list are limited to storing a preset number of items and excess items are scrolled off the top of the list as new items are added and to modify in Baker because such a modification would allow Baker to arrange information according to works and retain the progress states of the works by the works.

13. Claims 11-15, 25, 27-33, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,185,591) Baker et al, hereafter Baker in view of (US

5,828,375) Nomura et al and further in view of (US 6,310,630) Kulkarni et al, hereafter Kulkarni.

With respect to claim 11, Baker and Nomura failed to teach, the state history is stored in a region of memory and the oldest document states in the state history are discarded when free space in the region runs low.

Kulkarni teaches, the state history is stored in a region of memory and the oldest document states in the state history are discarded when free space in the region runs low (col. 5, lines 49-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the state history is stored in a region of memory and the oldest document states in the state history are discarded when free space in the region runs low and to modify in Baker because such a modification would allow Baker to have a memory space location within random access memory where the history can be added or deleted (discarded).

With respect to claim 12, Baker and Nomura failed to teach, the oldest document states are found and discarded by a memory management process.

Kulkarni teaches, the oldest document states are found and discarded by a memory management process (col. 7, lines 28-40). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the oldest document states are found and discarded by a memory management process and to modify in Nomura and Nakajima because such a modification would allow Baker to have the entire contents of each page contained in the history and for the history to be written to a file which is stored on a disk and since a limited amount of memory for data storage and the oldest data will usually be deleted (discarded).

With respect to claim 13, Baker failed to teach, in response to a user a command to change the document state corresponding to the selected item in the history list and

established as the current state of the document, deleting items after the selected item in the history list and the corresponding document states from the state history. Nomura teaches, in response to a user a command to change the document state corresponding to the selected item in the history list and established as the current state of the document, deleting items after the selected item in the history list and the corresponding document states from the state history (col. 14, lines 50-51, col. 16, lines 37-47, and col. 22, lines 60-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have in response to a user a command to change the document state corresponding to the selected item in the history list and established as the current state of the document, deleting items after the selected item in the history list and the corresponding document states from the state history and to modify in Baker because such a modification would allow Baker to have the states of information units contained in an information unit set in a history called up and the objects to be referred to by the information units can be restored as they were in the past.

With respect to claim 14, this dependent claim is rejected for the similar rationale given above for claims 11-13.

With respect to claim 15, Baker and Nomura failed to teach, enabling a user interface gesture on the history list to create a new document from a document state from the state history.

Kulkarni teaches, enabling a user interface gesture on the history list to create a new document from a document state from the state history (col. 7, lines 46-65). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have a user interface gesture and to modify in Baker because such a

modification would allow the user to select an icon and to perform an operation on the list to create a document.

With respect to claim 25, this dependent claim is rejected for the similar rationale given above for claim 13.

With respect to claim 27, Baker failed to teach, providing the user a delete tool for deleting the designated state from the set of states. Nomura teaches, providing the user a delete tool for deleting the designated state from the set of states (col. 6, lines 18-36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the user a delete tool for deleting the designated state from the set of states and to modify in Baker because such a modification would allow Baker to allow the user to change the work by an addition of deletion of an information unit in the history storage means.

With respect to claim 28, Baker failed to teach, the set of states is identified by displaying a scrollable list of elements each identifying one of the states in the set. Nomura teaches, the set of states is identified by displaying a scrollable list of elements each identifying one of the states in the set (col. 15, lines 33-47). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the set of states identified by displaying a scrollable list of elements each identifying one of the states in the set and to modify in Baker because such a modification would allow Baker to arrange and to select information from a list display area used for displaying and selecting a job.

With respect to claim 29, Baker failed to teach, the list of elements are ordered by the time the corresponding states were created. Nomura teaches, the list of elements are ordered by the time the corresponding states were created (col. 16, lines 26-47). It would have been obvious to one having ordinary skill in the art at the time the

invention was made to have the list of elements are ordered by the time the corresponding states were created and to modify in Baker because such a modification would allow Baker to have the states of the information contained in an information set in a history call up and to be referred to as information that can be restored as it was in the past.

With respect to claim 30, this dependent claim is rejected for the similar rationale as given above for claims 13 and 25.

With respect to claim 31, Baker and Nomura failed to teach, enabling the user to make a gesture on a user interface indicating a sequence of displayed state identifiers and responding to the gesture by displaying the document in the states indicated as the gesture is made.

Kulkarni teaches, enabling the user to make a gesture on a user interface indicating a sequence of displayed state identifiers and responding to the gesture by displaying the document in the states indicated as the gesture is made (col. 7, lines 46-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to enable a user to make a gesture on a user interface indicating a sequence of displayed state identifiers and responding to the gesture by displaying the document in the states indicated as the gesture is made and to modify in Baker because such a modification would allow Baker to display a browsing session and to selected an option when the session was last created or modified.

With respect to claim 32, Baker and Nomura failed to teach, enabling the user to modify the document state after the establishing step and adding the document state resulting from the modification to the set of states identified on the display device. Kulkarni teaches, enabling the user to modify the document state after the establishing step and adding the document state resulting from the modification to the set of states

identified on the display device (6, lines 45-56). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have an installing step and to modify in Baker because such a modification would allow the user to create a state for each command in the system and the document to be displayed for the modification of the document.

With respect to claim 33, Baker and Nomura failed to teach, the set of states is displayed in order of creation of the states in the set.

Kulkarni teaches, the set of states is displayed in order of creation of the states in the set (col. 6, lines 1-11 and lines 24-44). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the set of states is displayed in order of creation of the states in the set and to modify in Baker because such a modification would allow Baker to have a step for adding a new data record and to have the history to contain a new data record (order of creation) associated with a list of the web pages in an entry that might contain a pointer to the file.

With respect to claim 43, this independent claim is rejected for the similar rationale given for claims 32 and 33.

13. Claims 34-36 and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker, Nomura, and Kulkarni in view of Kurlander, David and Feiner, Steven, hereafter Kurlander and Feiner.

With respect to claim 34, Baker, Nomura, and Kulkarni failed to teach, the document is a digital image.

Kurlander and Feiner teaches, the document is a digital image (page 127, col. 2, lines 19-24). It would have been obvious to one having ordinary skill in the art of documents at the time the invention was made to have the document as a digital image

and to modify in Baker because such a modification in Baker would allow the image being displayed to represent any kind of a document such as a scanned picture in a bitmapped format or any other type of document that may be represented on a computer screen.

With respect to claim 35, Baker, Nomura, and Kulkarni failed to teach, providing a step backward and a step forward command for the user to execute to navigate the set of states and providing a separate undo and redo command for the user to undo and redo commands.

Kurlander and Feiner teaches, providing a step backward and a step forward command for the user to execute to navigate the set of states and providing a separate undo and redo command for the user to undo and redo commands (page 127, col. 2, paragraph 1, lines 12-15 and page 128, col. 1, paragraph 3, lines 11-18). It would have been obvious to a one having ordinary skill in the art at the time the invention was made to provide a step backward and a step forward command for the user to execute to navigate the set of states and provide separate undo and redo commands and to modify in Baker because such a modification would enable the user to toggles between the two states of a document and to make a comparison of a result of the command.

With respect to claim 36, this dependent claim is rejected for the similar rationale as given for claim 35.

With respect to claim 44, this dependent claim is rejected for the similar rationale given above for claims 35 and 36.

With respect to claim 45, establishing as the current state of the document a state stored in the state history (col. 5, lines 21-31 and col. 7, lines 28-34).

With respect to claims 46 and 47, Baker teaches, maintaining in memory a history of all operations requested by a user, including operations global to the state of the application (col. 3, lines 44-51 and col. 5, lines 51-60).

Allowable Subject Matter

14. Claims 17-21, 41 and 42 will be allowed when the 35 USC 112 second claim rejection is overcome.

The following will be the Examiner's statement of reasons for allowance: the document states being created automatically by the application whenever a user command to the application changes the state of the document and being complete in themselves.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

15. Applicants' arguments with respect to claims 1-7, 9-25, 27-37, and 39-47 are silent.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to Applicants' disclosure.

Yoshimura et al (US 5,574,846) disclosed an application executing the operational history of edited text, an undo/redo history, and a history list format.

Heninger et al (US 5,459,865) disclosed a multi-level undo and editing commands.

Kiernan et al (US 5,701,137) disclosed a graphical tree structure in a windowing environment.

Bretschneider et al (US 6,008,807) disclosed navigational functions and a user interface.

Savitzky et al (US 6,012,083) disclosed document processing and a graphical user interface.

Inquiries

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 703-308-7064. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 703-308-1038. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



E. Colbert
November 21, 2004